

WHAT IS CLAIMED IS:

- 1 1. A dental video camera comprising:
  - 2 a. a housing having an elongated cavity having a
  - 3 proximal end and a distal end;
  - 4 b. a fixed lens system disposed within said elongated
  - 5 cavity;
  - 6 c. an adjustably focusing lens and CCD camera system
  - 7 disposed within said elongated cavity, said adjustably
  - 8 focusing lens and CCD camera system including:
    - 9 i. a sleeve slidably coupled to said housing
    - 10 within said elongated cavity whereby said sleeve
    - 11 is able to move laterally back and forth;
    - 12 ii. an adjustable fixed lens system disposed
    - 13 within said sleeve; and
    - 14 iii. a charge-coupled device disposed within
    - 15 said sleeve whereby said sleeve laterally moves
    - 16 said adjustable focusing lens and CCD camera
    - 17 system back and forth in order to change the

1 position of said adjustably focusing lens and CCD  
2 camera system with respect to said fixed lens  
3 system thereby changing the field of focus;

4 d. a mechanism coupled to said housing whereby said  
5 mechanism bi-directionally drive said sleeve laterally  
6 to produce back and forth lateral movements; and

7 e. a plurality of lamps mechanically coupled to said  
8 housing at said distal end.

9

10 2. A dental video camera according to claim 1 wherein said  
11 dental video camera includes a pentaprism which optically  
12 couples said adjustably focusing lens and CCD camera system  
13 to said fixed focusing lens system and which is disposed in  
14 said elongated cavity of said housing at said distal end.

15

16 3. The dental video camera according to claim 1 wherein  
17 each of said lamps comprises a light emitting diode.

18

1 4. The dental video camera according to claim 1 wherein  
2 each of said lamps comprises a white light emitting diode.  
3

4 5. The dental video camera according to claim 1 wherein  
5 said dental video camera comprises:

- 6 a. a battery disposed in said housing; and  
7 b. a transmitter disposed in said housing whereby  
8 said transmitter transmits the video output of said  
9 dental video camera.

10

11 6. A dental video camera comprising:

- 12 a. a housing having an elongated cavity having a  
13 proximal end and a distal end;  
14 b. an fixed lens system disposed within said elongated  
15 cavity;  
16 c. an adjustable CCD camera system disposed within said  
17 elongated cavity, said adjustable CCD camera system  
18 including:

1 i. a sleeve slidably coupled to said housing  
2 within said elongated cavity whereby said sleeve  
3 is able to move laterally back and forth; and  
4 ii. a charge-coupled device disposed within  
5 said sleeve whereby said sleeve laterally moves  
6 said CCD camera system back and forth in order to  
7 change the position of said charge coupled device  
8 with respect to said fixed lens system thereby  
9 changing the field of focus;

10 d. a mechanism coupled to said housing whereby said  
11 mechanism bi-directionally drive said sleeve laterally  
12 to produce back and forth lateral movements; and  
13 e. a plurality of lamps mechanically coupled to said  
14 housing at said distal end.

16 7. A dental video camera according to claim 6 wherein said  
17 dental video camera includes a pentaprism which optically  
18 couples said adjustable CCD camera system to said fixed

1 focusing lens system and which is disposed in said elongated  
2 cavity of said housing at said distal end.

3

4 8. The dental video camera according to claim 6 wherein  
5 each of said lamps comprises a light emitting diode.

6

7 9. The dental video camera according to claim 6 wherein  
8 each of said lamps comprises a white light emitting diode.

9

10 10. The dental video camera according to claim 6 wherein  
11 said dental video camera comprises:

- 12 a. a battery disposed in said housing; and  
13 b. a transmitter disposed in said housing whereby  
14 said transmitter transmits the video output of said  
15 dental video camera.